

## Domain: Life Science

**LS1 – All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, species).**

**LS1.1 Students demonstrate an understanding of the diversity of organisms by**

Grade Span Expectations (K-4)	Grade Span Expectations (5-8)	Grade Span Expectations (9-12)
<p><b>LS1.1.1 Distinguish between living and non-living things.</b>            LS1.1.1a Recognize self as living.            LS1.1.1b Recognize at least one characteristic of living things. (e.g., Living things need food and water.)            LS1.1.1c Discriminate between a living thing and a non-living thing.            (Suggestion: Select a living thing from a group of non-living things.)</p> <p><b>LS1.1.2 Match organisms with similar features.</b>            LS1.1.2a Given an external feature of an organism, match organisms with the same feature. (e.g., head, legs, fur, wings, tail)</p>	<p><b>LS1.1.1 Distinguish between living and non-living things.</b>            LS1.1.1a Identify self as living, <u>therefore needing food and water.</u>            LS1.1.1b Identify at least <u>two</u> characteristics of living things. (e.g., Living things need food, water <u>and</u> air.)            LS1.1.1c Discriminate between a living thing and non-living things.  <u>LS1.1.1d Sort living things from a group of living and non-living things.</u>            (Suggestion: Select a living thing from a group of non-living things.)</p> <p><b>LS1.1.2 Compare similarities and differences between organisms.</b>  <u>LS1.1.2a Match similar organisms based on one or two external features. (e.g., match two similar animals such as fish to fish and bird to bird)</u>            NOTE:(classification, sort and compare</p>	<p><b>LS1.1.1 Distinguish between living and non-living things.</b>            LS1.1.1a Identify self as living, therefore needing food and water.            LS1.1.1b Identify two <u>or more</u> characteristics of living things. (e.g., Living things need food, water, air, <u>proper temperature, growth and habitat.</u>)            LS1.1.1c Discriminate between a living thing and non-living things.            LS1.1.1d Sort living things from a group of living and non-living things.  <u>LS1.1.1e Classify living things and non-living things into two groups.</u>            (Suggestion: Select a living thing from a group of non-living things.)</p> <p><b>LS1.1.2 Compare similarities and differences between organisms.</b>            LS1.1.2a Match similar organisms based on <u>two or more</u> external features. (e.g., match two similar animals such as fish to fish and bird to bird)</p>

<p><b>LS1.1.3 Distinguish plants from animals.</b> LS1.1.3a Recognize a plant. LS1.1.3b Recognize an animal. LS1.1.3c Distinguish a plant within a group of organisms. LS1.1.3d Distinguish an animal within a group of organisms.</p>	<p><u>depend on the selection of the organisms for degree of difficulty)</u> <u>LS1.1.2b Sort organisms based on one or two similar or different external features.</u> (Suggestion: Use a graphic organizer to show the common features of the organisms, such as fur, two legs) <u>LS1.1.2c Compare one or more external features of a group of organisms.</u> (Suggestions: Use a graphic organizer to show the common features of the organisms, such as fur, two legs; Use a Venn diagram to compare features of a group of organisms.)</p> <p><b>LS1.1.3 Distinguish plants from animals.</b> LS1.1.3a Identify a plant. LS1.1.3b Identify an animal. LS1.1.3c Distinguish a plant within a group of organisms. LS1.1.3d Distinguish an animal within a group of organisms. <u>LS1.1.3e Compare two or more plants to each other.</u> <u>1.1.3f Compare two or more animals to each other.</u> (Suggestion: Use a Venn diagram or other graphic organizer.)</p>	<p>NOTE:(classification, sort and compare depends on the selection of the organisms for degree of difficulty) LS1.1.2b Sort organisms based on <u>two or more similar or different external features.</u> LS1.1.2c Compare <u>two or more</u> external features of a group of organisms. <u>LS1.1.2d Group organisms by two or more similarities.</u> (Suggestions: Use a graphic organizer to show the common features of the organisms, such as fur, two legs; Use a Venn diagram to compare features of a group of organisms.)</p> <p><b>LS1.1.3 Distinguish plants from animals.</b> LS1.1.3a Identify a plant. LS1.1.3b Identify an animal. LS1.1.3c Distinguish a plant within a group of organisms. LS1.1.3d Distinguish an animal within a group of organisms. LS1.1.3e Compare two or more plants to each other. LS1.1.3f Compare two or more animals to each other. <u>LS1.1.3g Distinguish an organism as a plant or an animal.</u> <u>LS1.1.3h Compare similarities and differences between a plant and an animal.</u> (Suggestion: Use a Venn diagram or other</p>
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<p><b>LS1.1.4 Recognize external features common to familiar animals (including self).</b> LS1.1.4a Recognize legs. (e.g., dog, cat, person) LS1.1.4b Recognize head. (e.g., dog, cat, person) LS1.1.4c Recognize tails. (e.g., dog, cat) LS1.1.4d Recognize arms. (e.g., person)</p> <p><b>LS1.1.5 Recognize external features common to familiar plants.</b> LS1.1.5a Recognize roots. LS1.1.5b Recognize stems. LS1.1.5c Recognize leaves. LS1.1.5d Recognize flowers. LS1.1.5e Recognize seeds. LS1.1.5f Recognize fruit.</p>	<p><b>LS1.1.4 <u>Identify</u> external features common to familiar animals (including self).</b> LS1.1.4a <u>Identify</u> legs. (e.g., dog, cat, person) LS1.1.4b <u>Identify</u> head. (e.g., dog, cat, person) LS1.1.4c <u>Identify</u> tails. (e.g., dog, cat) LS1.1.4d <u>Identify</u> arms. (e.g., person) <u>LS1.1.4e Recognize wings. (e.g., bird, insect)</u> <u>LS1.1.4f Recognize antennae. (e.g., insect)</u> <u>LS1.1.4g Recognize shells. (e.g., snail)</u> <u>LS1.1.4h Recognize fins. (e.g., fish)</u></p> <p><b>LS1.1.5 <u>Identify</u> external features common to familiar plants.</b> LS 1.1.5a <u>Identify</u> roots. LS 1.1.5b <u>Identify</u> stems. LS 1.1.5c <u>Identify</u> leaves. LS 1.1.5d <u>Identify</u> flowers. LS 1.1.5e <u>Identify</u> seeds. LS 1.1.5f <u>Identify</u> fruit.</p>	<p>graphic organizer)</p> <p><b>LS1.1.4 <u>Identify</u> external features common to animals (including self).</b> LS1.1.4a Identify legs. (e.g., dog, cat, person) LS1.1.4b Identify head. (e.g., dog, cat, person) LS1.1.4c Identify tails. (e.g., dog, cat) LS1.1.4d Identify arms. (e.g., person) LS1.1.4e Recognize wings. (e.g., bird, insect) LS1.1.4f Recognize antennae. (e.g., insect) LS1.1.4g Recognize shells. (e.g., snail) LS1.1.4h Recognize fins. (e.g., fish) <u>LS1.1.4i Compare the external features of two organisms from different groups.</u></p> <p><b>LS1.1.5 <u>Identify</u> external features common to familiar plants.</b> LS 1.1.5a Identify roots. LS 1.1.5b Identify stems. LS1.1.5c Identify leaves. LS1.1.5d Identify flowers. LS1.1.5e Identify seeds. LS1.1.5f Identify fruit. <u>LS1.1.5g Compare the features of two different plants.</u></p>
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	<p><b><u>LS1.1.6 Associate the external features of animals with their functions.</u></b></p> <p><u>LS1.1.6a Recognize that legs are used for movement.</u></p> <p><u>LS1.1.6b Recognize that wings are used to fly.</u></p> <p><u>LS1.1.6c Recognize that shells are used for protection. (e.g., snail)</u></p> <p><u>LS1.1.6d Recognize that fins are used for movement.</u></p> <p><b><u>LS1.1.7 Classify organisms</u></b></p> <p><u>LS1.1.7a Recognize one or more major group organisms from a selection of different organisms. (Groups should include: mammals, fish, and reptiles.)</u></p> <p>(Suggestion: Ask the student to identify the fish when given several different organisms.)</p>	<p><b><u>LS1.1.6 Associate the external features of animals with their functions.</u></b></p> <p><u>LS1.1.6a Identify that legs are used for movement.</u></p> <p><u>LS1.1.6b Identify that wings are used to fly.</u></p> <p><u>LS1.1.6c Identify that shells are used for protection. (e.g., snail)</u></p> <p><u>LS1.1.6d Identify that fins are used for movement.</u></p> <p><b><u>LS1.1.7 Classify organisms</u></b></p> <p><u>LS1.1.7a Identify one or more major group organism from a selection of different organisms. (Groups should include: mammals, fish, amphibians, and reptiles.)</u></p> <p><u>LS1.1.7b Identify two or more arthropods. (Use common language such as insects, bugs, crabs, and spiders.)</u></p> <p><u>LS1.1.7c Recognize that some organisms are neither plants nor animals. (e.g., mushrooms, yeast, bacteria)</u></p> <p>(Suggestion: Ask the student to identify the fish when given several different organisms.)</p> <p><b><u>LS1.1.8 Associate the external features of plants with their functions.</u></b></p> <p><u>LS1.1.8a Identify that roots hold the plant in place and bring nutrients and water from the soil to the plant.</u></p>
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		<p><u>LS1.1.8b Identify that water and nutrients move to other parts of the plant through the stem.</u></p> <p><u>LS1.1.8c Identify that plants use leaves to make food.</u></p> <p><u>LS1.1.8d Identify that flowers, seeds, and fruits are related to flowering plant reproduction.</u></p>
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### Domain: Life Science

**LS1 – All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, species).**

**2.Students demonstrate an understanding that the structures of organisms fulfill functions needed for survival**

Grade Span (K-4)	Grade Span (5-8)	Grade Span (HS)
<p><b>LS1.2.1 Recognize that plants need certain things in order to grow and survive.</b></p> <p>LS1.2.1a Recognize one or more conditions a plant needs in order to grow and survive. (e.g., light, soil, water, and/or air)</p>	<p><b>LS1.2.1 <u>Indicate</u> that plants need certain things in order to grow and survive.</b></p> <p>LS1.2.1a Recognize one or more conditions a plant need in order to grow and survive (e.g., light, soil, water, space, and/or air).</p> <p>LS1.2.1b <u>Indicate one or more conditions a plant needs in order to grow and survive (e.g., light, soil, water, space, and/or air).</u></p> <p><u>LS1.2.1c Predict what happens to a plant under different conditions (e.g., blue light instead of white light).</u></p>	<p><b>LS1.2.1 <u>Describe</u> that plants need certain things in order to grow, survive, and reproduce.</b></p> <p><u>LS1.2.1a Recognize how plants need five conditions to grow, reproduce and survive:, light, water, air, space and food.</u></p> <p>LS 1.2.1b Indicate one or more conditions a plant needs in order to grow, survive, and reproduce. (e.g., light, soil, water, space, and/or air)</p> <p>LS1.2.1c Predict what happens to a plant under different conditions. (e.g., blue light instead of white light)</p> <p><u>LS1.2.2d Describe one or more conditions a plant needs in order to grow, survive, and reproduce. (e.g., light, soil, water, air, and/or space )</u></p>

**LS1.2.2 Recognize that animals need certain things in order to grow and survive.**

LS1.2.2a Recognize one or more conditions an animal needs in order to grow and survive. (e.g., food, water, shelter and/or air)

**LS1.2.2 Indicate that animals need certain things in order to grow and survive.**

LS 1.2.2a Recognize one or more conditions an animal needs in order to grow and survive. (e.g., food, water, shelter, space, and/or air)

LS1.2.2b Indicate one or more conditions an animal needs in order to grow and survive. (e.g., food, water, shelter, space, and/or air)

LS 1.2.2c Predict what happens to an animal under different conditions (e.g., different temperatures).

**LS1.2.3 Identify adaptations within organisms that help them survive in**

LS1.2.1e Investigate what happens to a plant under different conditions. (e.g., blue light instead of white light)

**LS1.2.2 Describe that animals need certain things in order to grow, survive, and reproduce.**

LS 1.2.2a Recognize one or more conditions an animal needs in order to grow, survive, and reproduce (e.g., food, water, shelter, space, and/or air).

LS1.2.2b Indicate one or more conditions an animal needs in order to grow, survive, and reproduce. (e.g., food, water, shelter, space, and/or air)

LS1.2.2c Predict what happens to an animal under different conditions. (e.g., different temperatures)

LS1.2.2d Describe one or more conditions an animal needs in order to grow, survive, and reproduce. (e.g., food, water, shelter, space, and/or air)

LS1.2.2e Investigate what happens to an animal under different conditions. (e.g., different temperatures)

**LS1.2.3 Identify adaptations within organisms that help them survive in**

	<p><b><u>their environment.</u></b></p> <p><u>LS1.2.3a Identify one or more adaptations needed for survival in common animals.</u> (e.g., adaptations such as claws, odor, teeth, tail, for defense, food/eating and maintaining body temperature)</p> <p><b><u>LS1.2.4 Identify the characteristics of living things.</u></b></p> <p><u>LS1.2.4a Recognize at least five of the ten characteristics of living things. (e.g., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, life span/death)</u></p> <p><u>LS1.2.4b Identify at least five of the ten characteristics of living things.</u></p> <p><b><u>LS1.2.5 Recognize that organisms are made of cells.</u></b></p> <p><u>LS1.2.5a Recognize that most organisms are made of many cells.</u></p> <p><u>LS1.2.5b Recognize that some organisms are made of only one cell.</u></p>	<p><b><u>their environment.</u></b></p> <p><u>LS1.2.3a Identify two or more adaptations needed for survival in common animals.</u> (e.g., adaptations such as claws, odor, teeth, tail, for defense, food/eating and maintaining body temperature)</p> <p><b><u>LS1.2.4 Describe the ten characteristics of living things.</u></b></p> <p><u>LS1.2.4a Recognize the ten characteristics of living things. (e.g., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, life span/death)</u></p> <p><u>LS1.2.4b Identify the ten characteristics of living things.</u></p> <p><u>LS1.2.4c Describe five of the ten characteristics of living things.</u></p> <p><b><u>LS1.2.5 Recognize that organisms are made of cells.</u></b></p> <p><u>LS1.2.5a Recognize that most organisms are made of many cells.</u></p> <p><u>LS1.2.5b Recognize that some organisms are made of only one cell.</u></p> <p><u>LS1.2.5c Recognize that some cells are specialized for certain functions.</u></p> <p><u>LS1.2.5d Recognize that individual cells have the same needs for survival as organisms.</u></p>
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## Domain: Life Science

**LS1 – All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, species).**

**3. Students demonstrate an understanding of reproduction.**

Grade Span (K-4)	Grade Span (5-8)	Grade Span (HS)
<p><b>LS1.3.1 Recognize the life stages of common organisms.</b>            LS1.3.1a Recognize the early stage of common organisms (e.g., seedlings, ducklings, human baby).            LS1.3.1b Recognize the mature stage of common organisms.</p> <p><b>LS1.3.2 Recognize similarities between parents and offspring.</b>            LS1.3.2a Match offspring with parent. (e.g., calf to a cow, chick to a hen, lamb to a sheep, puppy to a dog)</p>	<p><b>LS1.3.1 <u>Identify</u> the life stages of common organisms.</b>            LS1.3.1a <u>Identify</u> the early stage of common organisms (e.g., seedlings, ducklings, human baby).            LS1.3.1b <u>Identify</u> the mature stage of common organisms.</p> <p><b>LS1.3.2 <u>Identify</u> similarities between parents and offspring.</b>            LS1.3.2a Match offspring with parent. (e.g., calf to a cow, chick to a hen, lamb to a sheep, puppy to a dog, <u>acorn to oak tree, pinecone to pine trees</u>)</p>	<p><b>LS1.3.1 Identify the life stages of common organisms.</b>            LS1.3.1a Identify the early stage of common organisms (e.g., seedlings, ducklings, human baby).            LS1.3.1b Identify the mature stage of common organisms.</p> <p><b>LS1.3.2 Identify similarities between parents and offspring.</b>            LS1.3.2a Match offspring with parent. (e.g., calf to a cow, chick to a hen, lamb to a sheep, puppy to a dog, acorn to oak tree, pinecone to pine trees)  <u>LS1.3.2a From up to 4 kinds of plants or animals, select the offspring that belongs with given adult.</u>  <u>LS1.3.2b Match offspring and parents when given up to four different offspring and up to four different parents.</u>            (Suggestion: Select the offspring of the adult rabbit from pictures of baby rabbit, elephant, horse, and bear. Match the parent that belongs with each baby given pictures of</p>

	<p><b><u>LS1.3.3 Recognize the life cycle of a familiar plant or animal.</u></b></p> <p><u>LS1.3.3a Recognize a life cycle for an organism that does not undergo metamorphosis. (e.g., bear, rabbit)</u></p> <p><u>LS1.3.3b Recognize a life cycle for an organism that undergoes metamorphosis. (e.g., butterfly)</u></p>	<p>adult and baby rabbits and adult and baby elephants,)</p> <p><b><u>LS1.3.3 Sequence the life cycle of a familiar plant or animal.</u></b></p> <p><u>LS1.3.3a Recognize a life cycle for an organism that does not undergo metamorphosis. (e.g., bear, rabbit)</u></p> <p><u>LS1.3.3b Recognize a life cycle for an organism that undergoes metamorphosis. (e.g., butterfly)</u></p> <p><u>LS1.3.3c Sequence a life cycle for an organism with similar appearance at each stage. (e.g., bear, rabbit)</u></p> <p><u>LS1.3.3d Sequence a life cycle for an organism that undergoes metamorphosis. (e.g., butterfly)</u></p> <p><b><u>LS1.3.4 Compare life cycles of different organisms.</u></b></p> <p><u>LS1.3.4a Compare life cycles of two or more plants.</u></p> <p><u>LS1.3.4b Compare life cycles of two or more animals.</u></p> <p><b><u>LS1.3.5 Describe reproduction.</u></b></p> <p><u>LS1.3.5a Recognize reproduction as the process by which new individuals (offspring) receive genetic information from parents.</u></p> <p><u>LS1.3.5b Identify asexual reproduction as the process by which offspring receive genetic information from one parent. (e.g., cuttings</u></p>
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		from plants, cell division) LS1.3.5c Identify sexual reproduction as the process by which offspring receive genetic information from two parents. (e.g., male, female)
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## Domain: Life Science

### LS2 – Matter cycles and energy flows through an ecosystem.

#### 1. Students demonstrate an understanding of energy flow in an ecosystem.

Grade Span (K-4)	Grade Span (5-8)	Grade Span (HS)
<b>LS2.1.1. Recognize sources of energy for survival of organisms.</b> LS2.1.1a Recognize that sunlight is the source of energy for plants. LS2.1.1b Recognize that some animals get their energy (food) by eating plants. LS2.1.1c Recognize that some animals get their energy (food) by eating other animals. LS2.1.1d Care for plants and/or animals by identifying and providing for their needs.  <b>LS2.1.2 Recognize the relationships between organisms in a food web.</b> LS2.1.2a Recognize an animal that eats plants. LS2.1.2b Recognize an animal that eats other animals. LS2.1.2c Recognize an animal that eats both plants and animals.	<b>LS2.1.1 <u>Identify</u> sources of energy for survival of organisms.</b> LS2.1.1a <u>Identify</u> that sunlight is the source of energy for plants. LS2.1.1b <u>Identify</u> that some animals get their energy (food) by eating plants. LS2.1.1c <u>Identify</u> that some animals get their energy (food) by eating other animals. LS2.1.1d Care for plants and/or animals by identifying and providing for their needs.  <b>LS2.1.2 <u>Describe</u> the relationships between plants and animals that depend on each other for food.</b> LS2.1.2a <u>Identify</u> an animal that eats plants. LS2.1.2b <u>Identify</u> an animal that eats other animals. LS2.1.2c <u>Identify</u> an animal that eats both	<b>LS2.1.1 <u>Describe</u> the sources of energy for survival of organisms.</b> LS2.1.1a <u>Describe</u> that sunlight is the source of energy for plants. LS2.1.1b <u>Describe</u> that some animals get their energy (food) by eating plants. LS2.1.1c <u>Describe</u> that some animals get their energy (food) by eating other animals. LS2.1.1d Care for plants and/or animals by identifying and providing for their needs.  <b>LS2.1.2 <u>Describe</u> the relationships between plants and animals that depend on each other for food.</b> LS2.1.2a <u>Describe</u> an animal that eats plants. LS2.1.2b <u>Describe</u> an animal that eats other animals. LS2.1.2c <u>Describe</u> an animal that eats both

<p>LS2.1.2d Recognize that the relationships between plants and animals can be represented by simple food webs.</p>	<p>plants and animals. LS2.1.2d <u>Identify</u> the relationships between plants and animals <u>that are</u> represented by simple food webs.</p> <p><b><u>LS2.1.3 Discuss living and non-living factors in an ecosystem.</u></b> LS2.1.3a <u>Identify one or more living factor(s) that affect organisms in an ecosystem. (e.g.,, introduction of coyote to a forest, effects of a hurricane on an ecosystem, effect of pollution on an ecosystem)</u> LS2.1.3b <u>Identify one or more non-living factor(s) on organisms. (e.g., Extended drought leads to death of plant life and lack of food for herbivores.)</u> LS2.1.3c <u>Predict the impact of various living (e.g., disease, population shifts, non-native invasive species) and non-living (e.g., flood, drought, fires) factors on organisms.</u></p>	<p>plants and animals. LS2.1.2d <u>Describe</u> the relationships between plants and animals that are represented in simple food webs. LS2.1.2e <u>Recognize, identify or describe the role of decomposers in a food web. (e.g., earthworms)</u> LS2.1.2f <u>Recognize a host/parasite relationship.</u></p> <p><b><u>LS2.1.3 Discuss living and non-living factors in an ecosystem.</u></b> LS2.1.3a <u>Identify two or more living factors that affect organisms in an ecosystem.</u> LS2.1.3b <u>Identify two or more non-living factors that affect organisms.</u> LS2.1.3c <u>Predict the impact of various living (e.g., disease, population shifts, non-native invasive species) and non-living (e.g., flood, drought, fires) factors on organisms.</u> LS2.1.3d <u>Describe the impact of various living (e.g., disease, population shifts, non-native invasive species) and non-living (e.g., flood, drought, fires) factors on organisms.</u> LS2.1.3e <u>Describe how humans modify the environment and affect other organisms.</u> LS2.1.3f <u>Identify how organisms meet their life needs through their relationships with other organisms and what they can acquire from their environment.</u></p>
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		<p><b><u>LS2.1.4 Determine the relationship among photosynthesis, the sun, and the production of food by plants.</u></b></p> <p><u>LS2.1.4a Associate photosynthesis with plants absorbing energy from the sun and producing food.</u></p>
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## Domain: Life Science

### **LS3 – Groups of organisms show evidence of change over time (structures, behaviors, and biochemistry).**

#### **1. Students demonstrate an understanding of natural selection.**

Grade Span (K-4)	Grade Span (5-8)	Grade Span (HS)
<p><b>LS3.1.1 Recognize the responses of plants and animals to changes in their environment.</b></p> <p>LS3.1.1a Recognize the responses of plants and animals to a change in their food supply.</p> <p>LS3.1.1b Recognize the response of plants and animals to habitat destruction or changes in habitat. (e.g., flood, fire, housing developments)</p> <p>LS3.1.1c Recognize the response of plants and animals to seasonal and weather-related changes.</p> <p>(Suggestion: move a plant to a container and provide for its needs, and observe how the habitat change affects the plant)</p>	<p><b>LS3.1.1 Recognize the responses of plants and animals to changes in their environment.</b></p> <p>LS3.1.1a Recognize the responses of plants and animals to a change in their food supply.</p> <p>LS3.1.1b Recognize the response of plants and animals to habitat destruction or changes in habitat. (e.g., flood, fire, housing developments)</p> <p>LS3.1.1c Recognize the response of plants and animals to seasonal and weather-related changes.</p> <p>(Suggestion: move a plant to a container and provide for its needs, and observe how the habitat change affects the plant)</p>	<p><b>LS3.1.1 <u>Identify</u> the responses of plants and animals to changes in their environment.</b></p> <p>LS3.1.1a <u>Identify</u> the responses of plants and animals to a change in their food supply.</p> <p>LS3.1.1b <u>Identify</u> the response of plants and animals to habitat destruction or changes in habitat. (e.g., flood, fire, housing developments)</p> <p>LS3.1.1c <u>Identify</u> the response of plants and animals to seasonal and weather-related changes.</p> <p>(Suggestion: move a plant to a container and provide for its needs, and observe how the habitat change affects the plant)</p>

<p><b>LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.</b></p> <p>LS3.1.2a Match animals to their environment (e.g., camel in desert, polar bear in arctic).</p>	<p><b>LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.</b></p> <p>LS3.1.2a Match animals to their environment (e.g., camel in desert, polar bear in arctic, (Suggestion: Select a white rabbit over a brown or black rabbit as better adapted to a snowy, winter environment.)</p>	<p><b>LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.</b></p> <p>LS3.1.2a <u>Select the animal that can best live in a given environment when given a choice between two to four animals.</u></p> <p><u>LS3.1.2b Identify a fossil as remains of something that was once alive.</u></p> <p><u>LS3.1.2c Sequence fossils of organisms from the simplest to the most complex when given 3 to 5 fossils.</u></p> <p>(Suggestion: Select a white rabbit over a brown or black rabbit as better adapted to a snowy, winter environment.)</p>
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**Domain: Life Science**

**LS4 – Humans are similar to other species in many ways, and yet are unique among Earth’s life forms.**  
**1. Students demonstrate an understanding of human body systems.**

Grade Span (K-4)	Grade Span (5-8)	Grade Span (HS)
<p><b>LS4.1.1 Identify the senses.</b></p> <p>LS4.1.1a Identify one to two of the senses.</p> <p>LS4.1.1b Match the external body part with the</p>	<p><b>LS4.1.1 Identify the senses.</b></p> <p>LS4.1.1a Identify one to <u>three</u> of the senses.</p> <p>LS4.1.1b Match the external body part with</p>	<p><b>LS4.1.1 <u>Describe</u> the senses.</b></p> <p>LS4.1.1a Identify one to <u>five</u> of the senses.</p> <p>LS4.1.1b Match the external body part with</p>

senses known. (e.g., ear – hearing, finger – feeling)  <b>LS4.1.2 Identify patterns of human health and disease.</b> LS4.1.2a Recognize feelings of being sick. LS4.1.2b Identify the connection between hygiene and wellness.	the senses known. (e.g., ear – hearing, finger – feeling)  <b>LS4.1.2 Identify patterns of human health and disease.</b> LS4.1.2a Recognize feelings of being sick. LS4.1.2b Identify the connection between hygiene and wellness. <u>LS4.1.2c Understand that medicines can break the cycle of an illness.</u>  <b><u>LS4.1.3 Compare voluntary to involuntary body responses.</u></b> <u>LS4.1.3a Identify an involuntary response (e.g., breathing, reflexes, blinking, heartbeat).</u> <u>LS4.1.3b Identify a voluntary response (e.g., chewing, swallowing, moving an arm).</u>	the senses known. (e.g., ear – hearing, finger – feeling) LS4.1.1c <u>Describe one to five of the senses.</u>  <b>LS4.1.2 Identify patterns of human health and disease.</b> LS4.1.2a Recognize feelings of being sick. LS4.1.2b Identify the connection between hygiene and wellness. LS4.1.2c Understand that medicines can break the cycle of an illness.  <b>LS4.1.3 Compare voluntary to involuntary body responses.</b> LS4.1.3a Identify an involuntary response (e.g., breathing, reflexes, blinking, heartbeat). LS4.1.3b Identify a voluntary response (e.g., chewing, swallowing, moving an arm).  <b><u>LS4.1.4 Compare instinctual to learned behaviors.</u></b> <u>LS4.1.4a Identify one to three automatic behaviors. (e.g., breathing)</u> <u>LS4.1.4b Identify one to three learned behaviors.</u>
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## LIFE SCIENCE GLOSSARY

- **Abiotic** – non-living factor.
- **Adaptation** – the development of physical and behavioral characteristics that allow organisms to survive and reproduce in their habitats.
- **Asexual reproduction** – reproduction that does not include the union of sex cells and in which one parent produces offspring that are genetically identical to the parent.
- **Biotic** – living factor.
- **Carnivores** - meat eaters.
- **Commensalism** - a relationship between organisms of two different species in which one derives food or other benefits from the association while the other remains unharmed and unaffected.
- **Consumer** - an organism that feeds on other organisms or on material derived from them.
- **Decomposer** - an organism, especially a bacterium or fungus, which causes organic matter to rot or decay.
- **Diurnal** - used to describe animals that are active during the day rather than at night.
- **Ecosystem** – a localized group of interdependent organisms together with the environment that they inhabit and depend on.
- **Food chain** - a hierarchy of different living things, each of which feeds on the one below.
- **Food web** - the interlocking food chains within an ecological community
- **Fossil** – the remains of an animal or plant preserved from an earlier era inside a rock or other geological deposit, often as an impression or in a petrified state.
- **Herbivore** - plant eaters.
- **Hibernation** - a sleeplike dormant state over the winter during which an organism lives off reserves of body fat, with a decrease in body temperature and pulse rate and slower metabolism.
- **Host** - a human, animal, plant, or other organism in or on which another organism, especially a parasite, lives.
- **Life cycle** – the complete process of change and development during organism's lifetime.
- **Living** - anything that utilizes energy to, grows, responds to stimuli, moves, respire, and eliminates waste.
- **Metamorphosis** - to undergo a complete or marked change of bodily form while developing into an adult animal.
- **Migration** – the seasonal movement of organisms from one location to another.
- **Mutualism** - a relationship between two organisms of different species that benefits both and harms neither.
- **Nocturnal** – any organism that is active at night.
- **Non-living** - anything that does not (or never did) exhibit the characteristics of living things.
- **Offspring** - the descendants of organisms.



- **Omnivores** - organisms that consume both plants and meat.
- **Organism** – a living thing.
- **Parasite** - a plant or animal that lives on or in another, usually larger, host organism in a way that harms or is of no advantage to the host.
- **Photosynthesis** – a process by which green plants and other organisms produce simple sugars and oxygen from carbon dioxide and water, using energy that chlorophyll or other pigments absorb from the Sun.
- **Reproduce** - to produce offspring or new individuals through a sexual or asexual process
- **Respiration** – an energy producing process in the cells in which oxygen is delivered and carbon dioxide and water are given off.
- **Sexual reproduction** - reproduction that involves the union of male and female reproductive cells, each contributing half of the genetic makeup of the resulting offspring.
- **Survive** - to manage to stay alive or continue to exist, especially in difficult situations.
- **Symbiosis** – when one organism lives off of another that is often, but not always, of mutual benefit.